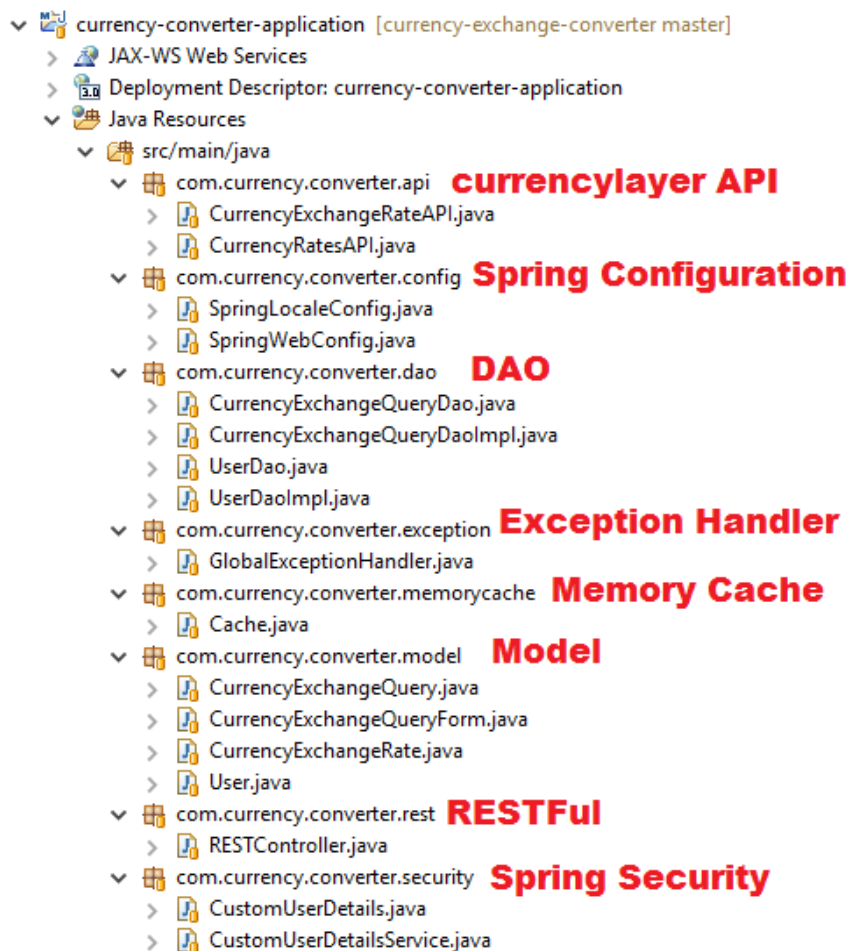


1. Technologies used in this application :


























































- JDK 1.7
- Spring (Core, MVC) 4.1.6.RELEASE
- Spring Security 3.2.3.RELEASE
- Hibernate 3.6.9.Final
- HSQLDB 2.3.2
- Servlet API 3.1.0
- Ehcache 2.6.10
- Jackson 2.6.3
- JSON 20151123
- JSTL 1.2
- Jetty 9.2.7.v20150116
- Maven 3.0.3
- Eclipse 3.6
- Logback 1.1.3
- SLF4J 1.7.12

2. Project Structure



Currency Converter Application

m.delpradoaranda@gmail.com

- ▼  com.currency.converter.service **Service**
 - >  CurrencyExchangeQueryService.java
 - >  CurrencyExchangeQueryServiceImpl.java
 - >  UserService.java
 - >  UserServiceImpl.java
- ▼  com.currency.converter.validator **Validators**
 - >  EmailValidator.java
 - >  UserFormValidator.java
 - >  ZipCodeValidator.java
- ▼  com.currency.converter.web **Controller**
 - >  CurrencyExchangeController.java
 - >  LoginController.java
 - >  UserController.java
- ▼  src/main/resources
 - ▼  db
 -  db.properties **DB Properties**
 - ▼  messages
 -  messages_de.properties
 -  messages_en.properties
 -  validation_de.properties
 -  validation_en.properties**Internalization**
 -  ehcache.xml **ehcache configuration**
 -  logback.xml **log configuration**
- >  Libraries
- >  JavaScript Resources
- >  Deployed Resources
- ▼  main
 - >  java
 - >  resources
 - ▼  webapp
 - ▼  META-INF
 -  persistence.xml **JPA Persistence**
 - ▼  resources
 - >  css **CSS**
 - >  js **JS**
 - ▼  WEB-INF
 - ▼  views **Views - JSP**
 - ▼  jsp
 - ▼  currency_exchange
 -  current.jsp
 -  list.jsp
 -  new.jsp
 - ▼  fragments
 -  footer.jsp
 -  header.jsp
 - ▼  login
 -  login.jsp
 - ▼  users
 -  show.jsp
 -  userform.jsp
 -  error.jsp
 -  security_error.jsp
 -  applicationContext.xml **Spring Configuration**
 -  spring-web-servlet.xml
 -  web.xml
- >  target
 -  pom.xml **Maven**

3. Run application

- Git Clone <https://github.com/migueldelprado/currency-exchange-converter.git>
- mvn package
- java -jar target/dependency/jetty-runner.jar target/*.war
- Go to <http://localhost:8080>

*Internet connection is required to run the application

4. Configuration Ehcache

- File /currency-converter-application/src/main/resources/ehcache.xml

5. Configuration Memory Cache for API

```
private final static long cacheTimeToLive = 200;  
private final static long cacheTimerInterval = 500;  
  
private final static Cache< String, HashMap< String, Double > > cache  
= new Cache< String, HashMap< String, Double > >( cacheTimeToLive,  
cacheTimerInterval );
```

6. RESTFUL

/currency-converter-
application/src/main/java/com/currency/converter/rest/RestController.java

- **Get information about an user**
 - HTTP GET should be used
 - URL \${application-context}/restful/users/{id}
 - {id} - User ID
- **Add a new user**
 - HTTP POST should be used
 - URL \${application-context}/restful/users/add
 - {

"name": "Miguel",
"email": "miguel@example.com",
"dateOfBirth": 554774400000,
"password": "123456",
"street": "Strasse 2",
"zipCode": 81369,
"city": "Boston",
"country": "US"

}
- **Update an existing user**
 - HTTP PUT should be used
 - URL \${application-context}/restful/users/update/{id}

Currency Converter Application

m.delpradoaranda@gmail.com

- **Get historical queries for an user**
 - HTTP GET should be used
 - URL `${application-context}/restful/currency_exchange/{id}`
 - `{id}` - User ID

7. Application running

<http://currency-exchange-converter.herokuapp.com/>